Minority Report

Recommendation from the MAG RASP Technical Advisory Committee on a Preferred Scenario

Summary:

On June 1, 2004 the MAG RASP Technical Advisory Committee voted to recommend a revised "Preferred Scenario" to the MAG RASP Policy Committee for the MAG RASP update. A set of proposed aviation alternatives are necessary to allow an airspace analysis to be undertaken. The analysis is intended to assist MAG in the evaluation of the future aviation needs in the region through the year 2025.

The City of Tempe voted against recommending the recently revised "Preferred Scenario" for the following reasons:

1. Describing the scenario as "Preferred"
   The scenario is developed for the purpose of doing further airspace analysis. Accordingly, it is premature to describe the scenario as "Preferred". In addition, prior to evaluations being completed, it is not appropriate to single out this scenario from numerous other scenarios that may be equally or more appropriate to satisfy future aviation needs for the region through 2025.

2. Significant changes made to previous draft scenario
   The scenario presented in the revised draft is drastically different from the first (April 2004) draft. The new scenario's environmental, monetary and implementation costs are much higher than the previous draft scenario. It is not clear why the new scenario is now "preferred". It should be noted that:

   a. The Maximized Airport Development Alternative for the Phoenix Sky Harbor International Airport was evaluated in Working Paper #5. In that analysis the 4th runway alternative was examined and deemed to impose:
      i. significant increase in noise impacts to surrounding non-compatible land uses,
      ii. significant costs,
      iii. moderate to potentially severe airspace impacts on Luke AFB, and
      iv. other challenges that caused the alternative to be rated as low for implementation.

   Based on these evaluations the first draft of the proposed scenario did not include a 4th runway alternative. No additions or amendments to these evaluations have been presented that support the inclusion of a 4th runway at Phoenix Sky Harbor International Airport in this scenario.

   b. The previous draft of the proposed scenario included a runway extension of the south runway, but in the revised scenario this has been changed without

additional evaluation. Without additional evaluation, it makes it difficult to decide if the proposals should be included in any scenario, left alone be deemed to be "preferred". These proposals include:

i. connecting taxiway Victor, and
ii. extension of the center runway to the west with a displaced threshold.

3. The need for developing a baseline before attempting an airspace analysis of a future scenario
   Williams Gateway's potential to address the long term air-transportation needs for the region is included in the New Airport Development Alternative. Therefore, an airspace analysis of the traffic volumes that can be facilitated under existing runway capacity available at Williams Gateway and Phoenix Sky Harbor International airports is appropriate. This initial capacity and airspace analysis is critical for the assessment of any additional needs for runway capacity in Maricopa County.

4. The need for an alternative to relieve further congestion of Phoenix airspace
   An alternative scenario for 2025 is needed to relieve expected congestion and saturation of the Phoenix airspace, and facilitate growth in commercial traffic at other airports in the region that efficiently can supplement Phoenix Sky Harbor International Airport. It is also critical to analyze these alternatives in meeting the long term growth and development of commercial airline activities in the region.

1. Airspace Analysis in the context of the MAG RASP 2025 Update:

A. Scope of Work.

According to the approved scope of work for the MAG RASP 2025 Update, the airspace system interactions will be studied to identify potential airspace conflicts through an analysis of system attributes, system constraints and the requirements for airport development within the region including:

- *An analysis of current airspace conflicts and congestion within the area.*
- *A review of FAA and military future airspace plans, including the airspace category changes and concepts for implementation of future air traffic control procedures, airspace reservations and ranges, or other factors, that could affect airspace uses.*
- *Review of FAA policy with respect to likely developments in future airspace management, with particular focus upon general aviation and its role within major metropolitan terminal areas.*
- *Review the instrument approach procedures and terminal airspace infrastructure in the areas in terms of compatibility and interaction with area airports.*
- *Future airport siting and locational studies will be analyzed in terms of possible conflicts with major military and civilian airport traffic, and recommendations for possible mitigation/work arounds.*
- *Participation in local and regional airspace meetings and forums to understand about specific issues, concerns, conflicts and resolutions proposals relative to the future airspace utilization in the MAG region. Specific emphasis will be given to current and anticipated future airspace reservation/special use airspace, military operations, including analysis of military-civilian air traffic interactions with military training routes and arrival/departure routes to training area.*
- *Current and future air traffic interactions will be analyzed in terms of:*
  - *Time of day - distribution of air traffic airspace utilization within a 24-hour time frame.*
  - *Seasonal variations in traffic that may impact air traffic/airspace interactions.*
- *Within the time and budgetary constraints possible in this limited study, the consultant will suggest possible airspace development concepts that may reduce or mitigate conflicts to allow airport development or expansion in appropriate locations. Because of the limitations on the study, an exhaustive or detailed analysis of all airspace conflicts and the development of the strategies for overall long-term solutions is not possible within the context of this study.*

B. Evaluations Necessary Prior to Preparing a Preferred Scenario

Airspace conflicts deserve special consideration in the regional airport system plan update. Working Paper #5 Alternatives Evaluation includes an airspace compatibility assessment of assumed impacts; severe, moderate or neutral of the proposed MAG RASP alternatives on Luke AFB airspace and that of Phoenix Sky Harbor International Airport. However, Working Paper #5, which according to the scope should be a working paper that includes an analysis of alternatives and documentation of all methods and assumptions used in the evaluation, includes no analysis of current and future air traffic interactions, which in relation to the Williams Gateway and Phoenix Sky Harbor International airports would give important information on these airports' ability to accommodate additional commercial aircraft operations during times of the day in which demand is high and the Phoenix airspace is most congested. Without a baseline in which items such as present runway configurations, locations of runways, airport taxi patterns, design, approach and departure procedures have been included in an airspace analysis to determine the capacity of the existing infrastructure, it is difficult to develop a scenario that identifies the need for improvements to airports within the regional airport system to accommodate expected levels of traffic.

Recommendation:
An airspace modeling effort should first be conducted to determine the current capacity of the region's airports. All subsequent infrastructure improvements recommended in a scenario and sponsored by any area airport should then be analyzed as to need, based on a measured comparison to actual regional capacity. With regard to Williams Gateway it is difficult to determine whether additional runway capacity at Phoenix Sky Harbor International Airport would benefit the ability of both airports to interact and for Luke AFB to still being left with enough available airspace to maintain its mission. Accordingly, an airspace analysis using acknowledged airspace simulation tools needs to include the study of the interactions of these airports and Luke AFB before a "Preferred Scenario" is presented with recommended alternatives.

2. Recommendation of a Preferred Scenario for the MAG RASP 2025 Update:

A. Scope of Work.

The "Preferred Scenario" is intended as a basis for MAG RASP recommendations. The scope of work for the MAG RASP 2025 Update lists this task as:

Following the review and acceptance of alternatives by the MAG RASP Policy Committee, stakeholders, the public, the consultant, in close cooperation with the MAG, and other interests as appropriate, will prepare a recommended

combination of alternatives or preferred alternatives. The recommendation(s) will be supported by documentation developed in Tasks 1 through 6, and summarized in a concise working paper. Public meetings to present the recommendations are outlined below. Specific focus will be placed on the following elements:

- *Recommendations for consideration of system plan policy initiatives that could be important in implementation of the plan.*
- *Compatibility/conflict analysis including a technical report for the Study that includes a separate section for each of the 16 airports, land use, military, political and jurisdictional considerations. These needs will be identified drawing upon and updating, as necessary, individual airport master plans, the MAG Consolidated Airport Capital Improvement Program (CACIP), the five (5) year Airport Improvement Program, individual sponsor airport improvement programs, the Federal Aviation Administration Airport Improvement program and any other relevant information. Information obtained as a part of the State Aviation Needs study will also be assessed.*
- *CACIP and related funding programming considerations, including a funding plan, which will identify how the recommended projects will be funded. This funding plan will include capital and operation and maintenance costs, specify any new funding needed and identify reasonably available funding sources. The plan will also confirm estimates of funding services, including local, state and federal funds where applicable. To the extent such information is available, revenue sources from private sector services will also be identified, if applicable.*
- *Other regional planning coordination issues, including alternative transportation modes, environmental issues and air quality.*
- *Identification of possible strategies/methods for airspace conflict resolution or reduction, and recommendations for consideration in final implementation plans.*
- *Public meetings (2) are anticipated to be held to solicit public and aviation interest input. The meetings will be held in a location acceptable to MAG staff, and will consist of preliminary recommendations for the system plan. The comments received will be considered in final recommendations.*

Drawing upon the alternatives analysis, policy recommendations to ensure the efficient functioning of the airport system will be developed to complement the capital improvement recommendations. These policy recommendations may include but not be limited to issues such as land use compatibility, airspace usage, compatibility between military and civilian traffic, and ground access to airports. Land use compatibility policies and guidelines will consider disclosure of airport noise impacts strategies to prevent encroachment, and guidelines for heliport landing areas. The policy recommendations will take into account other regional planning efforts including the results of the Vision 2025 process and the MAG Open Space Plan.

Work Product: A major working paper that will include a summary report (concise format) that will document the basis for alternative recommendation. A preliminary version of the web page/limits will also be presented.

The MAG RASP Technical Advisory Committee has been presented with two drafts for a "Preferred Scenario". We believe that the first draft (April 2004) not voted upon by the Technical Advisory Committee had better support in the Working Paper #5 alternatives evaluation than does the revised draft subjected to a vote and approved by the majority of the committee members. With regard to Phoenix Sky Harbor International and Williams Gateway airports, the first draft was subject to substantial changes upon suggestions from the airports' sponsors.

The Maximized Airport Development Alternative for the Phoenix Sky Harbor International Airport presented in Working Paper #4 that included a 4th runway alternative was evaluated in Working Paper #5 to impose:

- Significant increase in noise impacts to surrounding non-compatible land uses such as residential neighborhoods and schools. Not only will Tempe and Phoenix be impacted but, with a 4th runway located to the north of existing runways, Scottsdale neighborhoods will also be impacted.
- Significant monetary costs. With a fourth runway, a runway extension to an existing runway, development of a parallel taxiway, and expansion of the terminal building and parking, the Maximized Airport Development alternative's projects at Phoenix Sky Harbor International Airport would cost at least $1.68 billion under growth scenario 1, exceeding the cost of building a new commercial facility to supplement the 3-runway airport proposed in the New Airport Development Alternative under growth scenario 1 by over $50 million and under growth scenario 2 by over $1 billion.
- Moderate to potentially severe airspace impacts on Luke AFB.
- Significant implementation challenges that caused the analysis to rate "low" for ease of implementation. A major challenge listed is a signed intergovernmental agreement between Tempe and Phoenix that limits the capacity of a 4th runway alternative.

A 4th runway alternative was not included in the first scenario (April 2004) presented in draft Working Paper #6. This draft also affirmed the study's assumption that the 1994 Intergovernmental Agreement between the cities of Phoenix and Tempe on noise mitigation flight procedures would continue. The agreement was assessed potentially to impact the gains in capacity that would result from development of a 4th runway, and likely limit the full capacity benefit of a fourth runway. This was one of the reasons ease of implementation was considered to be low in the alternatives evaluation. This part of the assessment has been deleted from the revised draft scenario after comments made by the airport sponsor, even though no analysis or document has been presented that addresses the validity of the assessments made in Working Paper #5 and in the first draft scenario (April 2004).

Working Paper #4 also included a Maximized Airport Development Alternative for the Phoenix Sky Harbor International Airport that included an extension of the south runway to 9,500 feet, but in the revised scenario this has been changed to include:

- connecting taxiway Victor, and
- extension of the center runway with a displaced threshold (to facilitate departures to the east over Tempe).

These changes were proposed at the Technical Advisory Committee meeting where the majority of the members voted on the revised scenario. Subsequently the draft scenario that was presented for a vote did not include these changes and was not supported by existing evaluations made prior to the vote.

The development of supplemental commercial capacity at Williams Gateway recommended in the first draft (April 2004) was identified as having the greatest potential for implementation in Working Paper #5. This alternative has been eliminated in the revised scenario, which leaves the New Airport Development Alternative without any proposed airport development and without any evaluated basis in Working Paper #5 before being included in the "Preferred Scenario". Curved precision approaches for Williams Gateway suggested in the draft scenario as a possible option to the east west runway alternative evaluated in Working Paper #5 have not been subjected to evaluation.

B. The Need for an Alternative Scenario

It is not prudent to present a "Preferred Scenario" as a potential basis for a MAG RASP recommendation, when previous evaluations included alternatives identified to have serious complications as to their implementation, and when alternatives included in the scenario have been subject to substantial changes that have not been analyzed. Conclusions in the previous draft summary for a "Preferred Scenario" (April 2004) have been changed to accommodate requests for what should and what should not be included in a future scenario.

A 4th Runway at Phoenix Sky Harbor International Airport was examined in Working Paper #4 and is expected to provide additional operational capacity of only 5 to 12 percent, which is not sufficient to accommodate projected demand for 2025 as presented in Working Paper #3. Working Paper #3 projected a need for an additional 19-47 percent to accommodate hourly demand under good weather conditions.

Recommendation:
An alternative scenario is needed to the proposed Maximized Development Alternative for Phoenix Sky Harbor International Airport that can relieve the airport and its airspace from expected congestion and saturation, and facilitate growth in commercial traffic within the regional airport system well into 2020's.